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<110> Taisho Pharmaceutical Co., Ltd.
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      SHINONAGA, Hideki
      FUJIMOTO, Natsuko
      KASAI, Yoko

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Leu Glu Val His Gln Phe Trp Pro Leu Val Glu Ile Gln Cys Ser Pro
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Asp Leu Arg Phe Phe Leu Cys Thr Met Tyr Thr Pro Ile Cys Leu Pro
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Asp Tyr His Lys Pro Leu Pro Pro Cys Arg Ser Val Cys Glu Arg Ala
            100   105   110

Lys Ala Gly Cys Ser Pro Leu Met Arg Gln Tyr Gly Phe Ala Trp Pro
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Glu Arg Met Ser Cys Asp Arg Leu Pro Val Leu Gly Arg Asp Ala Glu
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Val Leu Cys Met Asp Tyr Asn Arg Ser Glu Ala Thr Thr Ala Pro Pro
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Arg Pro Phe Pro Ala Lys Pro Thr Leu Pro Gly Pro Pro Gly Ala Pro
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Phe Leu Ile Asp Met Asp Thr Phe Arg Tyr Pro Glu Arg Pro Ile Ile
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Phe Leu Ser Ala Cys Tyr Leu Cys Val Ser Leu Gly Phe Leu Val Arg
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        130   135   140

His Phe Pro Arg His Gly Ala Glu Gln Ile Cys Val Gly Gln Asn His
145   150   155   ·   160

Ser Glu Asp Gly Thr Pro Ala Leu Leu Thr Thr Ala Pro Pro Ser Gly
                165   170   175

Leu Gln Pro Gly Ala Gly Gly Thr Pro Gly Gly Pro Gly Gly Gly Gly
                180   185   190

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Ala Pro Pro Arg Tyr Ala Thr Leu Glu His Pro Phe His Cys Pro Arg
        195             200             205

Val Leu Lys Val Pro Ser Tyr Leu Ser Tyr Lys Phe Leu Gly Glu Arg
    210             215             220

Asp Cys Ala Ala Pro Cys Glu Pro Ala Arg Pro Asp Gly Ser Met Phe
225             230             235             240

Phe Ser His His His Thr Arg Phe Ala Arg Leu Trp Ile Leu Thr Trp
            245             250             255

Ser Val Leu Cys Cys Ala Ser Thr Phe Phe Thr Val Thr Thr Ser Leu
            260             265             270

Val Ala Met Gln Arg Phe Arg Tyr Pro Glu Arg Pro Ile Ile Phe Leu
        275             280             285

Ser Gly Cys Tyr Thr Met Val Ser Val Ala Tyr Ile Ala Gly Phe Val
    290             295             300

Leu Gln Glu Arg Val Val Cys Asn Glu Arg Phe Ser Glu Asp Gly Tyr
305             310             315             320

Arg Thr Val Gly Gln Gly Thr Lys Lys Glu Gly Cys Thr Ile Leu Phe
            325             330             335

Met Met Leu Tyr Phe Phe Ser Met Ala Ser Ser Ile Trp Trp Val Ile
            340             345             350

Leu Ser Leu Thr Trp Phe Leu Ala Ala Gly Met Lys Trp Gly His Ala
            355             360             365

Ala Ile Glu Ala Asn Ser Gln Tyr Phe His Leu Ala Ala Trp Ala Val
    370             375             380

Pro Ala Val Lys Thr Ile Thr Ile Leu Ala Met Gly Gln Ile Asp Gly
385             390             395             400

Asp Leu Leu Ser Gly Val Cys Phe Val Gly Leu Asn Arg Leu Asp Pro
            405             410             415

Leu Arg Gly Phe Val Leu Ala Pro Leu Phe Val Tyr Leu Phe Ile Gly
            420             425             430
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Thr Ser Phe Leu Leu Ala Gly Phe Val Ser Leu Phe Arg Ile Arg Thr
        435                 440                 445

Ile Met Lys His Asp Gly Thr Lys Thr Glu Pro Leu Glu Arg Leu Met
    450                 455                 460

Val Arg Ile Gly Val Phe Ser Val Leu Tyr Thr Val Pro Ala Thr Ile
465                 470                 475                 480

Val Ile Ala Cys Tyr Phe Tyr Glu Gln Ala Phe Arg Glu His Trp Glu
            485                 490                 495

Arg Ser Trp Val Ser Gln His Cys Lys Ser Leu Ala Ile Pro Cys Pro
            500                 505                 510

Ala His Tyr Thr Pro Arg Thr Ser Pro Asp Phe Thr Val Tyr Met Ile
        515                 520                 525

Lys Tyr Leu Met Thr Leu Ile Val Gly Ile Thr Ser Gly Phe Trp Ile
    530                 535                 540

Trp Ser Gly Lys Thr Leu His Ser Trp Arg Lys Phe Tyr Thr Arg Leu
545                 550                 555                 560

Thr Asn Ser Arg His Gly Glu Thr Thr Val
            565                 570


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<211>  1912
<212>  DNA
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tggggggcgg cggccagcat gcgggcccgc agcgccctgc cccgcagcgc cctgccccgc     120

ctgctgctgc cactgctgct gctgccggct gccgggccgg ctcagttcca cggggagaag     180

ggcatctcca tcccggacca cggcttctgc cagcccatct ccatcccgct gtgcacggac     240

atcgcctaca accagaccat catgcccaac cttcttgggc acacgaacca agaggacgcg     300

ggcctggagg tgcatcaatt ctacccgctg gtgaaggtgc agtgctcgcc cgagctgcgc     360

ttcttcctgt gctccatgta cgctccggtg tgcacggtgc tggagcaggc catcccgccg     420

tgccgctcca tctgcgaacg cgcgcgccaa ggctgcgagg cgctcatgaa caagttcggc     480

ttccagtggc ccgagcgcct ccgctgcgag catttcccgc gtcacggcgc ggagcagatc     540
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13/25

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tgcgtgggcc agaaccactc cgaggacgga actcctgcgc tactcaccac cgcgccaccg    600

tctgggctgc agcctggcgc tggtggcacc ccgggcggcc ctggcggtgg tggcgcgccc    660

ccgcgctacg ccactctgga gcaccctttc cactgtcccc gcgtcctcaa ggtgccgtcc    720

tatctcagct ataagtttct gggtgagcgc gattgtgccg cgccctgcga gcctgcacgg    780

cccgacggct ccatgttctt ctcgcaccac cacactcgtt ttgcccgtct ctggatcctc    840

acatggtcgg tgctgtgctg cgcttctact ttcttcacgg tcaccacctc tttagtggcc    900

atgcagcgat tccgctaccc agagcggccc atcatcttcc tgtccggttg ctacaccatg    960

gtgtcagtgg cctacattgc gggcttcgtg ctccaggagc gcgtggtgtg caacgagcgc   1020

ttctctgagg acggttatcg cacggtgggg cagggcacta agaaagaagg ctgtactata   1080

ctcttcatga tgctctactt cttcagtatg gccagctcca tctggtgggt gattctgtcc   1140

ctcacctggt tcctggcagc cggtatgaag tggggccacg cggccatcga ggccaattcg   1200

cagtacttcc acctggccgc ctgggcggtg ccggccgtca aaaccatcac catcctggcc   1260

atgggccaga tcgacggcga cctgctgagc ggcgtgtgct tcgtgggcct caacaggctg   1320

gacccgctgc gaggcttcgt gctggcgccg ctcttcgtgt acctgttcat cggcacatcc   1380

ttcctgctgg cgggcttcgt gtcactcttc cgcatccgca ccatcatgaa gcacgacggc   1440

accaagacgg agccgctgga gaggctcatg gtgcgtatcg gcgtcttctc cgtgctctac   1500

accgtaccgg ccaccatcgt catcgcctgc tacttctatg agcaggcctt ccgcgagcac   1560

tgggagcgct cgtgggtaag ccagcactgc aagagcctag ccatcccctg cccggcccac   1620

tacacgcccc gcacgtcgcc cgacttcaca gtctacatga tcaaatacct catgacgctc   1680

atcgtgggca tcacgtcggg cttctggatc tggtccggca agacgctgca ctcgtggagg   1740

aagttctaca cgcgtctcac caacagccgg catggagaga ccaccgtgtg aagcggtctc   1800

gctgctgggc gccccctct cccaggtccg gactgcaacc gtgccctcct tcactcggga   1860

ggggggtgca ccctacggac tcctatttta ttttttaaa taaagaacag tg         · 1912


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<210>   9
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accacagtcc atgccatcac   20

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tccaccaccc tgttgctgta   20

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gtcctgggag cggggctttt ttctcttgga aagaaagt   38

<210>   13
<211>   46
<212>   DNA
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agagttctta gatggtaaca ggaaattttt ctcttggaaa gaaagt   46

<210>   14

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catagaagct gaattgtgaa tagatttttt ttctcttgga aagaaagt                   48


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atcccaattc ttataacagc ttctttttct cttggaaaga aagt                       44


<210>  19
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<400>  20
ggctcagtgt gaagaggaag gttttttctc ttggaaagaa agt                      43


<210>  21
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<400>  21
ccagtggagc tgccgtttgt ttttctcttg gaaagaaagt                          40


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<400>  22
cactgtactt tctataaata agcggttttt aggcatagga cccgtgtct                49


<210>  23
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<400>  23
tttctaaaaa ccaaaaacca gaatttttta ggcataggac ccgtgtct                 48


<210>  24
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<400>   24
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<210>   25
<211>   57
<212>   DNA
<213>   Artificial Sequence

<220>
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<400>   25
caaataataa ttataatatt aataataaac cactttttag gcataggacc cgtgtct     57


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<212>   DNA
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ttaccttctg gatgtgtacc atgtcttttt aggcatagga cccgtgtct              49


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<210>  36
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<212>  DNA
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<400>  36
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<400>  37
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<400>  38
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<210>  39
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<210>  41
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<400>  41
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<400>  43
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<210>  44
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<400>    45
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cacaacacgg aggaatcaga gagttttttag gcataggacc cgtgtct                     47


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<210>    49
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<400> 52
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<220>
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<400> 53
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<210> 54

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<400>   54
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<212>   DNA
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caaaagaagt cttgtattac cttttcaa                                     28


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<213>   Artificial Sequence

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<400>   56
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<210>   57
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<400>   57
aaaatgcaga aagcaagcta gca                                          23


<210>   58
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<220>
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<400>   58
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<210>   59
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<211> 19
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<220>
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<400> 59
tcaagccaac ctccccaaa   19

<210> 60
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<400> 60
ggatttcact gtttttcctc aaat   24

<210> 61
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<212> DNA
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<400> 61
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